

# THE ANNALS

AND

## MAGAZINE OF NATURAL HISTORY.

[EIGHTH SERIES.]

No. 21. SEPTEMBER 1909.

---

XVII.—*A Revision of the Australian Species of the Genus Scolia.* By ROWLAND E. TURNER, F.Z.S., F.E.S.

AUSTRALIA is not very rich in species of *Scolia*, but as there has been some confusion in the naming and as to the sexes, I think a revision may be useful. Probably more species will yet be discovered in the *Discolia* group, for which I have had least material available, but my material in other groups has been very extensive. In addition to the series in the British Museum, I have been able to use the fine series sent by Mr. H. M. Giles from Western Australia and my own collection from Queensland. The divisions into genera and subgenera are more convenient than natural, the neuration, on which the division is founded, often differing in the most nearly allied species. I have been obliged to sink the name *Elis* used by Saussure for the species with two recurrent nervures, seeing that the Fabrician definition of *Elis* is almost certainly taken from a male *Plesia*. The name must therefore be used for *Plesia*, Jur., over which I think it has priority, and not for the genus to which it is usually applied and for which *Campsomeris*, Lep., must be used.

Outside the genus *Scolia*, taken in the wider sense, the family Scoliidæ is represented in Australia by a single species of *Tiphia*, which, as far as I know, only occurs in tropical Queensland, and by a considerable number of species of *Anthobosca*, a genus now entirely confined to the continents

of the Southern Hemisphere, but which is apparently identical with a fossil genus *Geotiphia*, recently described by Cockerell from North America; showing that the genus had a much more extensive range in the past. I look on the genus as in some respects a link between *Scolia* and the Thynnidæ, and think it not improbable that it is older than either of those groups. The genera *Myzine* and *Plesia* are entirely absent from Australia and the single species of *Tiphia* is evidently a Malayan immigrant.

Individuals of some of the species of *Scolia* are very numerous and several of the species seem to range over almost the whole continent. *Dielis radula* and *formosa* are the commonest species in Queensland. The paucity of species is probably due to the absence of natural barriers and to their suitability for a dry climate; whilst their powers of flight are not limited, as in the case of the Mutillidæ and Thynnidæ, by the necessity for an apterous female being carried by the male.

*Key to the Australian Species of Scolia.*

♀ ♀.

- A. Fore wing with one recurrent nervure.
- a. Three closed discoidal cells ..... *Liacos insularis*, Sm.
  - b. Two closed discoidal cells ..... Genus *Scolia*.
  - a<sup>2</sup>. Three cubital cells ..... Subgenus *Triscolia*.
  - a<sup>3</sup>. Black, third abdominal segment spotted with yellow.
  - a<sup>4</sup>. Vertex with a transverse yellow band ..... *S. frontalis*, Sauss. (typical).
  - b<sup>4</sup>. Vertex without a yellow band. *S. frontalis*, st. *obscuriceps*.
  - b<sup>3</sup>. Entirely black. .... *S. frontalis*, st. *nicoladonii*.
  - b<sup>2</sup>. Two cubital cells ..... Subgenus *Discolia*.
  - a<sup>3</sup>. Entirely black ..... *S. soror*, Sm.
  - b<sup>3</sup>. Vertex marked with yellow ..... *S. verticalis*, Fabr.
- B. Fore wing with two recurrent nervures ..
- a. Three cubital cells ..... Subgenus *Trililis*.
  - a<sup>2</sup>. Three closed discoidal cells ..... *C. ferruginea*, Fabr.
  - b<sup>2</sup>. Two closed discoidal cells.
  - a<sup>3</sup>. Wing dark fusco-violaceous.
  - a<sup>4</sup>. Entirely black ..... *C. anthracina*, Burm.
  - b<sup>4</sup>. Third abdominal segment spotted with yellow. .... *C. anthracina*, var. *consanguinea*, Sauss.
  - b<sup>3</sup>. Wings flavo-hyaline, abdomen banded with orange.
  - a<sup>4</sup>. Second and third dorsal segments with large orange lateral spots .. *C. gilesi*.
  - b<sup>4</sup>. Second and third dorsal segments evenly banded with orange.
  - a<sup>5</sup>. The orange bands narrow and basal ..... *C. zonata*, Sm.
  - b<sup>5</sup>. The bands very broad, the second and third segments narrowly black at the apex.

- a*<sup>6</sup>. The whole disc of the mesonotum punctured. . . . . *C. flavidula*, Sm.  
*b*<sup>6</sup>. The disc of the mesonotum with a smooth area. . . . . *C. flavidula*, st. congener.  
**b.** Two cubital cells . . . . . Subgenus *Dielis*.  
*a*<sup>7</sup>. Black, with fasciæ of white pubescence at the apex of abdominal segments . . . . . *C. curvifrons*.  
*b*<sup>7</sup>. Abdomen banded with yellow.  
*a*<sup>8</sup>. First dorsal segment entirely black . . . . . *C. rudula*, Fabr.  
*b*<sup>8</sup>. First dorsal segment marked with yellow.  
*a*<sup>9</sup>. Second recurrent nervure complete. Abdominal bands broad and yellow . . . . . *C. formosa*, Guér.  
*b*<sup>9</sup>. Second recurrent nervure incomplete. Abdominal bands narrower and orange . . . . . *C. subopaca*.  
  
 ♂♂.  
**A.** Fore wing with one recurrent nervure.  
*a.* Three closed discoidal cells . . . . . *Liacos insularis*, Sm.  
*b.* Two closed discoidal cells. . . . . Genus *Scolia*.  
*a*<sup>2</sup>. Three cubital cells . . . . . Subgenus *Triscolia*.  
*a*<sup>3</sup>. Third dorsal segment spotted with yellow, sides of the pronotum yellow . . . . . *S. frontalis*, Sauss. (typical).  
*b*<sup>3</sup>. Third dorsal segment spotted with yellow, pronotum wholly black . . . . . *S. frontalis*, st. *obscuriceps*.  
*b*<sup>2</sup>. Two cubital cells . . . . . Subgenus *Discolia*.  
*a*<sup>4</sup>. Entirely black.  
*a*<sup>4</sup>. Second ventral segment tuberculate at base . . . . . *S. commixta*.  
*b*<sup>4</sup>. Second ventral segment not tuberculate.  
*a*<sup>5</sup>. Pubescence black . . . . . *S. soror*, Sm.  
*b*<sup>5</sup>. Pubescence cinereous . . . . . *S. pygmaea*, Sauss.  
*b*<sup>5</sup>. Vertex marked with orange . . . . . *S. verticalis*, Fabr.  
**B.** Fore wing with two recurrent nervures . . . . . Genus *Campsomeris*.  
*a.* Three cubital cells. . . . . Subgenus *Trielis*.  
*a*<sup>2</sup>. Three closed discoidal cells. . . . . *C. ferruginea*, Fabr.  
*b*<sup>2</sup>. Two closed discoidal cells.  
*a*<sup>3</sup>. Wings dark fusco-violaceous.  
*a*<sup>4</sup>. Entirely black . . . . . *C. anthracina*, Burm.  
*b*<sup>4</sup>. Third abdominal segment spotted with yellow . . . . . *C. anthracina*, var. *consanguinea*, Sauss.  
*b*<sup>3</sup>. Wings hyaline or flavo-hyaline. Abdomen banded with yellow.  
*a*<sup>4</sup>. Thorax immaculate, bands of abdomen orange . . . . . *C. zonata*, Sm.  
*b*<sup>4</sup>. Thorax usually spotted on scutellum at least, bands of abdomen pale yellow.  
*a*<sup>5</sup>. Median segment marked with yellow . . . . . *C. flavidula*, Sm.  
*b*<sup>5</sup>. Median segment entirely black . . . . . *C. gilesi*.  
**b.** Two cubital cells . . . . . Subgenus *Dielis*.  
*a*<sup>2</sup>. Three basal abdominal segments banded narrowly with yellow.

- a<sup>1</sup>. Scutellum and postscutellum marked with yellow, ventral segments 2 and 3 banded with yellow . . . . . *C. subopaca*.  
 b<sup>3</sup>. Thorax and ventral segments entirely black . . . . . *C. gracilis*, Sauss.  
 b<sup>2</sup>. Six basal segments at least banded with yellow.  
 a<sup>3</sup>. Clypeus entirely yellow.  
   a<sup>4</sup>. Seventh segment banded with yellow . . . . . *C. radula*, Fabr.  
   b<sup>4</sup>. Seventh segment black entirely . . . . . *C. carinifrons*.  
 b<sup>3</sup>. Clypeus yellow with a small black spot in the middle; seventh segment entirely black . . . . . *C. formosa*, Guér.

## Genus LIACOS, Guér.

Subgenus DILIACOS, Sauss. et Sichel.

*Liacos insularis*, Sm.

*Scolia insularis*, Sm. Journ. Proc. Linn. Soc., Zool. iii. p. 153 (1858), ♂.

*Hab.* Mackay, Q.; Cairns, Q.

Female specimens from Queensland are a little more sparsely punctured on the thorax than Ké specimens, but otherwise do not differ. Males from the two localities show no difference. The species also ranges into the Solomon Islands, specimens from that locality having been recorded by Kirby as *Diliacos dubia*, Sm. The latter species described by Smith from Ceram does not appear to differ sufficiently from *insularis*, if Kirby's identification of the female is correct.

## Genus SCOLIA, Fabr.

Subgenus TRISCOLIA, Sauss. et Sichel.

1. *Scolia frontalis*, Sauss.

*Scolia frontalis*, Sauss. Mém. Soc. phys. et hist. nat. Genève, xiv. p. 38 (1854), ♂ ♀.

*Scolia coronata*, Sm. Cat. Hym. B. M. iii. p. 112 (1855).

*Hab.* Adelaide, S.A.; New South Wales; Eastern Queensland.

The typical form from Eastern Australia has a yellow band on the vertex of the female and the sides of the pronotum yellow in the male. But in specimens from Port Darwin these yellow markings are absent in both sexes, the insects being entirely black with the exception of the yellow spots on the third abdominal segment. For this form I propose the name *S. frontalis*, st. *obscuriceps*. The spines of the

hypopygium in the male are rather longer in Port Darwin specimens than in the typical forms, but specimens from the east coast are not quite constant in this respect. *S. nicoladoni*, D. T., = *laviceps*, Kirby, must I think stand as another race distinguished by the absence of all yellow markings. The forms will stand:—

1. *Scolia (Triscolia) frontalis*, Sauss., st. *frontalis*, Sauss.  
Eastern Australia.
2. *Scolia (Triscolia) frontalis*, Sauss., st. *obscuriceps*,  
st. nov. Port Darwin.
3. *Scolia (Triscolia) frontalis*, Sauss., st. *nicoladoni*, D. T.  
South-western Australia.

Subgenus DISCOLIA, Sauss. et Sich.

1. *Scolia soror*, Sm.

*Scolia soror*, Sm. Cat. Hym. B. M. iii. p. 96. n. 50 (1855).

*Scolia cyanipennis*, Lepel. Hist. nat. Insect. Hym. iii. p. 521 (1845)  
(nec Fabr.).

*Scolia viridipennis*, Sm. Cat. Hym. B. M. iii. p. 96. n. 52 (1855).

*Hab.* Eastern Australia, Adelaide to Cairns.

2. *Scolia pygmaea*, Sauss.

*Scolia pygmaea*, Sauss. Ann. Soc. Entom. France, (3) vi. p. 217  
(1858), ♂.

*Hab.* South-western Australia.

This may prove to be a geographical race of *soror*, Sm., but the sculpture differs. The tubercle at the base of the second ventral segment of *soror* does not seem to be a good distinguishing character, as it is not present in any specimen I have seen. Probably Saussure confused two species under *soror*. In the present species the pubescence is cinereous, not black as in *soror*.

3. *Scolia verticalis*, Fabr.

*Scolia verticalis*, Fabr. Syst. ent. p. 356 (1775).

*Scolia tuberculiventris*, Sauss. Mém. Soc. phys. et hist. nat. Genève, xiv.  
p. 47 (1854), ♂.

*Hab.* The whole of the southern and eastern portions of Australia from Perth to Cooktown; probably also the north and north-west.

The type is a male and is an unusually large specimen and has the spines of the hypopygium much longer than is usual in this species. But comparison of a long series shows

that this is a very variable character, so I conclude that there is only one species of *Discolia* in Australia with a transverse orange band on the vertex. The tubercle at the base of the second ventral segment is always well marked in this species.

4. *Scolia commixta*, sp. n.

? *Scolia soror*, Sauss. et Sich. Spec. gen. *Scolia*, p. 126 (1864) (nec Smith).

♂. Clypeus convex, sparsely punctured, truncate at the apex. Scape finely punctured; antennæ about as long as the thorax and median segment combined, much shorter than in *soror*. Head sparsely punctured; the front below the anterior ocellus raised, smooth and opaque immediately below the ocellus, then closely punctured, longitudinally and very finely striated between the antennæ, the striated portion divided by a longitudinal sulcus which extends on to the punctured portion. Thorax sparsely and not very coarsely punctured, the mesonotum smooth in the middle and to the posterior margin; the median segment more closely and coarsely punctured at the apex. Abdomen closely punctured, more sparsely in the middle of the segments than on the sides; the first segment very broad, not constricted or depressed at the apex, the second ventral segment with a tubercle in the middle at the base.

Shining black, with black pubescence. Wings very dark fuscous, with strong blue and purple gloss.

Length 18 mm.

*Hcb.* Port Darwin (*J. J. Walker*).

Easily distinguished from *soror* by the short antennæ and the tubercle on the second ventral segment.

Genus CAMPSOMERIS, Lepel.

Subgenus TRIELIS, Sauss. et Sich.

1. *Campsomeris anthracina*, Burm.

*Scolia anthracina*, Burm. Abh. naturf. Ges. Halle, i. pt. 4, p. 16 (1853), ♂ ♀.

*Elis (Trielis) consanguinea*, Sauss. Mém. Soc. phys. et hist. nat. Genève, xiv. p. 50 (1854), ♂.

*Scolia bimaculata*, Sm. Cat. Hym. B. M. iii. p. 115 (1855), ♂.

I cannot see that *consanguinea* is more than an aberration in which there is an orange spot on each side of the third dorsal segment. This is the usual form of the male: specimens which are wholly black seem to be rare; but the female is very rarely marked with the orange spots. All the males

I have seen without the orange spots are from South-west Australia and have the first abdominal segment broader than in Eastern specimens; but I can find no difference in the female. Should the difference between the males prove to be entirely local, *consanguinea* might stand as a subspecies.

*Hab.* Eastern Australia, Adelaide to Toowoomba; Swan River, W.A.

## 2. *Campsomeris flavidula*, Sm.

*Scolia flavidula*, Sm. Cat. Hym. B. M. iii. p. 115 (1855), ♀.

*Elis (Trielis) liturata*, Sauss. et Sichel, Spec. gen. *Scolia*, p. 143 (1864), ♀.

*Elis (Trielis) australensis*, Sauss. et Sichel, Spec. gen. *Scolia*, p. 144 (1864), ♂.

*Hab.* South Australia.

*st. congener*, nom. nov.

*Elis (Trielis) flavidula*, Sauss. et Sichel, Spec. gen. *Scolia*, p. 143 (1864), ♀ (nec Smith).

This is distinguishable from the typical form by a smooth shining area on the disc of the mesonotum, and the colour of the wings, which in some specimens are flushed with purple at the apex. I have only seen one male and cannot be sure whether Saussure's description of *australensis* applies to the typical form or the present.

*Hab.* South-west Australia.

## 3. *Campsomeris zonata*, Sm.

*Scolia zonata*, Sm. Cat. Hym. B. M. iii. p. 116 (1855), ♂ ♀.

*Hab.* Sydney, N.S.W. (*Froggatt*); Woodford, N.S.W. (*G. A. Waterhouse*); Kuranda, Q. (*Turner*).

The orange bands on the dorsal abdominal segments are at the base in both sexes. In a female specimen from Kuranda the band on the third segment is almost obsolete, though well developed in other specimens from the same locality.

## 4. *Campsomeris gilesi*, sp. n.

♀. Clypeus very coarsely longitudinally rugose; the apical margin depressed and smooth, very broadly rounded, almost transverse. Scape smooth above, sparsely punctured beneath. Head shining, sparsely punctured, a large smooth area behind the ocelli, the posterior margin more closely punctured; the sides of the clypeus, front above the base of the antennæ, and the posterior margin of the head clothed

with long fulvous pubescence. Thorax and median segment coarsely punctured and clothed with fulvous pubescence, the pubescence beneath grey; a large, smooth, shining area on the disc of the mesonotum narrowly continued to the posterior margin; the middle of the scutellum broadly smooth; the median segment shorter than the postscutellum and bluntly produced on the middle of the apical margin. Abdomen very sparsely punctured, the sides of the segments thinly clothed with long grey hairs; segments 2-5 with an apical fringe of long golden hairs, shorter and paler on the ventral surface. Apical segment longitudinally rugose, with a few very short, stiff, golden hairs.

Black; the second, third, and fourth dorsal segments with a yellow apical band; a large orange-yellow spot on each side of the second and third dorsal segments, sometimes joining in the middle; the spines of the tarsi ferruginous, the pubescence on the legs grey. Wings flavo-hyaline, flushed with purple at the apex of the fore wings; nervures ferruginous.

Length 29-35 mm.

♂. Clypeus almost transverse at the apex, very slightly rounded. Antennæ very stout, the eight apical joints strongly arcuate beneath; head and thorax punctured, a small smooth area on the disc of the mesonotum, the pubescence long, close and grey, light fulvous on the mesonotum; the median segment shorter than the postscutellum, with an obscure longitudinal carina. Abdomen shallowly and not very closely punctured, the punctures large; the fourth segment finely and closely punctured at the base, the apex of the seventh segment smooth.

Black; the clypeus, a minute spot on the postscutellum, a broad transverse band emarginate anteriorly in the middle close to the apex of the second and third dorsal abdominal segments, a transverse band broadest in the middle on the fourth and fifth segments, a narrow transverse band interrupted in the middle on ventral segments 2-5, and a spot on each side of the second and third ventral segments dull yellow; tegulæ testaceous brown. Wings flavo-hyaline; nervures ferruginous. Some specimens have a yellow band on the first segment. The first abdominal segment is broad. The third cubital cell is strongly narrowed on the cubital nervure, more strongly in the male than in the female.

Length 24 mm.

*Hab.* Perth, W.A. (*H. M. Giles*), 8 ♀, 3 ♂; Sydney, N.S.W. (*Froggatt*), 1 ♀.

This species seems to have been confused with *australensis*, Sauss., which I take to be the male of *flavidula*, Sm., and not



of this species, the markings given in the description of *australensis* agreeing better with the smaller species. The markings on the male of the present species vary considerably, some specimens having the anterior margin of the pronotum narrowly yellow. A specimen from Kelmscott, W.A., has a small yellow spot on the scutellum and the anterior and intermediate femora and the anterior tibiæ beneath marked with yellow, but in the other specimens I have seen the legs are entirely black. The female from Sydney has the tibiæ and tarsi dark ferruginous.

### 5. *Campsomeris ferruginea*, Fabr.

*Scolia ferruginea*, Fabr. Syst. ent. p. 355 (1775), ♀.

*Scolia fulva*, Gray, Griffith Anim. Kingd. xv. p. 516 (1832), ♂ ♀.

*Hab.* Cooktown, Cairns, Q. ; Port Darwin.

This is not a true *Trielis*, there being an extra discoidal cell as in *Liacos*, but there are two recurrent nervures; the difference in neuration between this species and other Australian *Trielis* consisting in the presence of a transverse nervure connecting the two recurrent nervures and thus forming an extra cell.

Subgenus *DIELIS*, Sauss. et Sichel.

### 1. *Campsomeris radula*, Fabr.

*Tiphia radula*, Fabr. Syst. ent. p. 354. n. 5 (1775), ♀.

*Scolia septemcincta*, Fabr. Syst. ent. p. 356. n. 10 (1775), ♂.

*Elis (Dielis) sabulosa*, Sauss. Ann. Ent. Soc. Franc. p. 235 (1858), ♀.

*Scolia (Dielis) intrudens*, Sm. Trans. Ent. Soc. London, p. 241 (1868), ♀.

*Hab.* North Queensland, Mackay to Cooktown (*Turner*); Strelley River, N.W. Australia (*Giles*); Champion Bay, W.A. (*Du Boulay*); Port Darwin (*J. J. Walker*).

The male has no black spot on the clypeus and has all seven dorsal abdominal segments banded with yellow. On the ventral surface the yellow band at the apex of the third segment is produced upwards in the middle so as nearly to reach the base of the segment, but this latter mark is not quite constant. There is a similar mark on the second ventral segment, both in this species and in *formosa*, Guér., but the latter species never has the mark on the third segment so much developed as is usual in *radula*; *formosa* always has a small black spot in the middle of the clypeus and the seventh segment is not marked with yellow.

2. *Campsomeris formosa*, Guér.

*Scolia formosa*, Guér. Voy. 'Coquille,' Zool. ii. p. 252, 1830 (1839), ♀.  
*Elis tasmaniensis*, Sauss. Mém. Soc. phys. et hist. nat. Genève, xiv.  
 p. 61 (1854), ♀.  
*Elis (Dielis) formosa*, Sauss. et Sich. Spec. gen. *Scolia*, p. 209 (1864),  
 ♀ ♂.

*Hab.* Australia.

Apparently spread over the whole continent. Female specimens from North Queensland have the wings feebly suffused with fuscous and the black marks on the abdomen more extensive than in specimens from Southern and Western Australia. The male is very like that of *radula*, but differs as noticed under that species.

3. *Campsomeris carinifrons*, sp. n.

♀. Clypeus almost smooth, with two parallel longitudinal carinæ close together on the apical half, the apical margin depressed. Head smooth and shining, with a few scattered punctures on the vertex and a longitudinal frontal sulcus which does not reach the anterior ocellus; the front round the base of the antennæ and the sides of the clypeus densely clothed with very long white pubescence. Pronotum, post-scutellum, and median segment closely and coarsely punctured; the mesonotum and scutellum more sparsely punctured, the middle of the mesonotum and the apex of the scutellum smooth; the anterior margin of the pronotum, the pleuræ, and the median segment rather thinly clothed with white pubescence. Abdomen shining, the segments sparsely punctured at the base and apex, smooth in the middle and at the extreme apex; dorsal segments 1-4 and ventral segments 2-5 with a close fringe of white pubescence. Apical dorsal segment rugose with short black setæ, with an acute spine on each side near the apex. The radial cell does not project much beyond the second cubital cell.

Black; the mandibles and the apex of the clypeus fusco-ferruginous. Wings flavo-hyaline at the base, fusco-hyaline with a blue flush at the apex, darkest beyond the radial cell, nervures ferruginous brown.

Length 13-17 mm.

♂. Very similar to the same sex in *C. radula* and *C. formosa*, but the clypeus is entirely yellow as in *radula*, without the small black spot which distinguishes *formosa*; the seventh dorsal segment is not marked with yellow as in *radula*, and the yellow markings on the ventral surface are similar to those of *formosa*.

Length 10-13 mm.

*Hab.* Queensland, Mackay to Cape York ; Port Darwin ; Central Australia. 7 ♀, 4 ♂.

Very near *C. de mijerei*, Cam., from New Guinea, but is rather differently punctured, and the nervures in Cameron's species are black. They will probably prove to be geographical races of the same species.

#### 4. *Campsomeris subopava*, sp. n.

♀. Clypeus punctured at the sides, smooth in the middle, opaque, very broadly rounded at the apex. Head rather closely punctured, the area round the ocelli almost smooth, the punctured spaces covered with short, coarse, fulvous pubescence. Thorax closely punctured, more sparsely on the middle of the mesonotum and scutellum, clothed with fulvous pubescence, closely on the pronotum and sides of the mesonotum, more sparsely elsewhere ; the surface of the posterior truncation of the median segment smooth. Abdomen opaque above, shining beneath, with a few scattered punctures ; segments 2-5 with an apical fringe of fulvous hairs, paler beneath than above, the apical segment rugose with fulvous setæ.

Black ; mandibles and femora fusco-ferruginous ; tibiæ and tarsi ferruginous ; dorsal segments 1-4 with a transverse apical band of orange, broad on the three basal segments, narrow on the fourth ; ventral segments 2-3 with a narrow, short, transverse yellow band on each side on the apical margin. Wings flave-hyaline, slightly clouded with fuscous beyond the apex of the radial cell ; nervures ferruginous. The second recurrent nervure is incomplete and does not reach the cubital nervure.

Length 27 mm.

♂. The form and sculpture are very similar to *formosa* ♂, but the scutellum and postscutellum are more closely punctured. As in the female, the second recurrent nervure is incomplete, not reaching the cubital nervure.

Black ; the abdomen strongly glossed with blue ; clypeus (except a triangular black spot on the middle), the outer margins of the eyes narrowly, the inner margins as high as the emargination of the eye, the pronotum, the base of the tegulæ, a short line above the tegulæ, a large spot on each side of the scutellum, a transverse band on the postscutellum, a rather narrow transverse band at the apex of dorsal segments 1-3 (often interrupted on the third segment, and on the second and third ventral segments), the femora beneath, the anterior tibiæ above and the anterior tarsi yellow. Wings

fusco-hyaline, darkest on the costa, nervures black. Pubescence pale fulvous above, greyish beneath, black on the sides of the abdomen, close on the median segment, sparse elsewhere.

Length 17-22 mm.

*Hab.* Cairns, Q. 8 ♂, 2 ♀.

Allied to *C. iris*, Lep., and still more closely to *Scolia culta*, Sm., from New Guinea. In the latter species, however, the second recurrent nervure is entirely absent. This species shows the artificial nature of the division by neurulation in *Scolia* and its near allies, the most nearer related species being placed in a different genus.

##### 5. *Campsomeris gracilis*, Sauss.

*Elis gracilis*, Sauss. Mém. Soc. phys. et hist. nat. Genève, xiv. p. 62 (1854), ♂.

I have not seen this species.

XVIII.—*Descriptions of some new Species of the Genus Delias from North New Guinea, recently collected by Mr. C. E. Pratt.* By Sir GEORGE H. KENRICK, F.Z.S. &c.

[Plates VI. & VII.\*]

##### *Delias fuliginosus*, sp. n. (Pl. VI. figs. 1 & 1 a.)

♂. Head, palpi, legs, and antennæ black; thorax and palpi with long grey hairs; abdomen above black, below pale, the whole powdered with yellow scales.

Upperside of both wings black, with the exception of the fold of the hind wings, which is very pale yellow; the whole powdered with sulphur-yellow scales, through which the nervures stand out dark; fringes of fore wings black, with a few yellow scales; fringes of hind wings sulphur-yellow.

Underside: fore wings dark grey, with a few white scales, an irregular band of yellow spots triangularly placed on costa beyond cell and reaching over two-thirds of the hind margin.

Hind wings black; a small basal yellow costal spot, from which extends a narrow white streak about halfway along the costa, where it develops into an irregular white band

\* [We are indebted to Sir George H. Kenrick for the copies of the coloured plates illustrating this and the following paper.—EDS.]